School-Home Letter

Vocabulary

estimate A number close to an exact amount

compatible numbers Numbers that are easy to compute mentally and are close to the real numbers

Dear Family,

During the next few weeks, our math class will be learning to estimate and solve addition and subtraction problems using numbers through hundreds.

You can expect to see homework that provides practice with adding and subtracting numbers as well as estimating sums and differences.

Here is a sample of how your child will be taught to estimate sums.

🔒 MODEL Estimate Sums

These are two methods we will be using to estimate sums.

$367 + 512 = \blacksquare$

Use rounding.

STEP 1

Round each number to the nearest hundred.

$367 \rightarrow 400$
$+ 512 \rightarrow 500$

STEP 2

Add the rounded numbers.

$\begin{array}{r} 400 \\ + 500 \\ \hline 900 \end{array}$

Use compatible numbers.

STEP 1

Find a compatible number for each addend.

$105 \rightarrow 100$
$+ 362 \rightarrow 400$

STEP 2

Add the numbers mentally.

$\begin{array}{r} 100 \\ + 400 \\ \hline 500 \end{array}$

Tips

Choosing Compatible Numbers to Estimate Sums and Differences

A number may have more than one compatible number. For example, a compatible number for 362 could be 350 or 400. Whichever numbers are easiest to add or subtract mentally are the best ones to use for estimations.

Activity

Provide books with large numbers of pages (3-digit numbers). Have your child use rounding and compatible numbers to estimate the total number of pages in the two books and compare how many more pages one book has than the other.

Carta para la casa

Vocabulario

estimación Un número que se aproxima a una cantidad exacta

números compatibles Números con los que es fácil calcular mentalmente y que se aproximan a los números reales

Querida familia,

Durante las próximas semanas, en la clase de matemáticas aprenderemos a estimar y resolver problemas de suma y resta usando números hasta las centenas.

Llévare a la casa tareas con actividades para practicar la suma y la resta, y para estimar sumas y diferencias.

Este es un ejemplo de la manera como aprenderemos a estimar sumas.

🔑 MODELO Estimar sumas

Estos son dos métodos que usaremos para estimar sumas.

$367 + 512 = \blacksquare$

Usa el redondeo.

PASO 1

Redondea cada número a la centena más cercana.

$367 \rightarrow 400$
$+ 512 \rightarrow 500$

PASO 2

Suma los números que hallaste.

$\begin{array}{r} 400 \\ + 500 \\ \hline 900 \end{array}$

Usa números compatibles.

PASO 1

Halla un número compatible para cada sumando.

$105 \rightarrow 100$
$+ 362 \rightarrow 400$

PASO 2

Suma los números mentalmente.

$\begin{array}{r} 100 \\ + 400 \\ \hline 500 \end{array}$

Pistas

Elegir números compatibles para estimar sumas y restas

Un número puede tener más de un número compatible. Por ejemplo, un número compatible para 362 puede ser 350 o 400. Cualquiera de los números con el que sea más fácil sumar y restar mentalmente sirve para hacer estimaciones.

Actividad

Dé a su hijo o hija dos libros que tengan bastantes páginas (con números de 3 dígitos). Pídale que use el redondeo y los números compatibles para estimar el total de páginas de los dos libros y para averiguar cuántas más páginas tiene un libro que el otro.

Number Patterns

COMMON CORE STANDARD CC.3.OA.9
Solve problems involving the four operations, and identify and explain patterns in arithmetic.

Find the sum. Then use the Commutative Property of Addition to write the related addition sentence.

1. $9 + 2 = \underline{11}$
$\underline{2} + \underline{9} = \underline{11}$

2. $4 + 7 = \underline{11}$
$\underline{7} + \underline{4} = \underline{11}$

3. $3 + 6 = \underline{9}$
$\underline{6} + \underline{3} = \underline{9}$

4. $3 + 10 = \underline{13}$
$\underline{10} + \underline{3} = \underline{13}$

5. $6 + 7 = \underline{13}$
$\underline{7} + \underline{6} = \underline{13}$

6. $7 + 5 = \underline{12}$
$\underline{5} + \underline{7} = \underline{12}$

7. $8 + 9 = \underline{17}$
$\underline{9} + \underline{8} = \underline{17}$

8. $0 + 4 = \underline{4}$
$\underline{4} + \underline{0} = \underline{4}$

9. $9 + 6 = \underline{15}$
$\underline{6} + \underline{9} = \underline{15}$

Is the sum even or odd? Write _even_ or _odd_.

10. $5 + 2$ __odd__

11. $6 + 4$ __even__

12. $1 + 0$ __odd__

13. $5 + 5$ __even__

14. $3 + 8$ __odd__

15. $7 + 7$ __even__

Problem Solving REAL WORLD

16. Ada writes $10 + 8 = 18$ on the board. Maria wants to use the Commutative Property of Addition to rewrite Ada's addition sentence. What number sentence should Maria write?

8 + 10 = 18

17. Jackson says he has an odd number of model cars. He has 6 cars on one shelf and 8 cars on another shelf. Is Jackson correct? **Explain.**

No, he is not correct; 6 + 8 = 14, which is an even number.

Lesson Check (CC.3.OA.9)

1. Marvella says that the sum of her addends is odd. Which of the following could be Marvella's addition problem?

- (A) $5 + 3$
- (C) $2 + 8$
- (B) $9 + 7$
- ● $5 + 6$

2. Which number sentence shows the Commutative Property of Addition?

$$3 + 9 = 12$$

- (A) $12 - 9 = 3$
- ● $9 + 3 = 12$
- (B) $12 = 8 + 4$
- (D) $12 - 3 = 9$

Spiral Review (Reviews CC.2.MD.3, CC.2.MD.8, CC.2.MD.10)

3. Amber has 2 quarters, a dime, and 3 pennies. How much money does Amber have? (Grade 2)

- (A) 53¢
- ● 63¢
- (B) 58¢
- (D) 68¢

4. Josh estimates the height of his desk. Which is the best estimate? (Grade 2)

- (A) 1 foot
- (C) 5 feet
- ● 2 feet
- (D) 9 feet

Use the bar graph for 5–6.

5. Who read the most books? (Grade 2)

- (A) Alicia
- (B) Bob
- ● Juan
- (D) Maria

6. Who read 3 more books than Bob? (Grade 2)

- ● Alicia
- (B) Juan
- (C) Maria
- (D) no one

Books Read

Number of Books Read: Juan 6, Bob 2, Maria 4, Alicia 5

Student
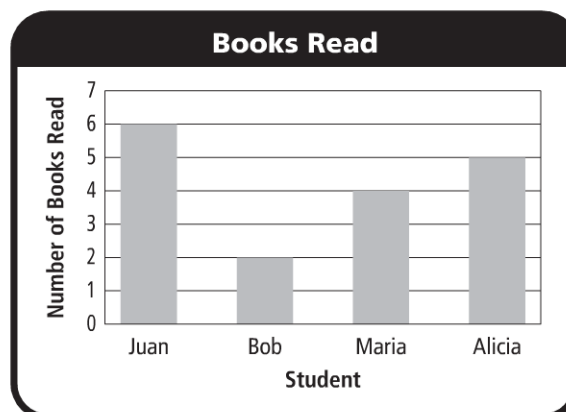
Name _____

Round to the Nearest Ten or Hundred

**Locate and label 739 on the number line.
Round to the nearest hundred.**

739

600   700   800   900
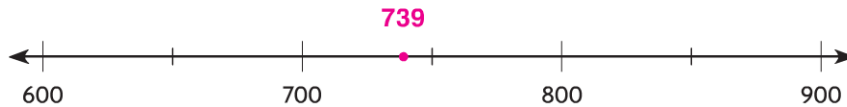
1. 739 is between __700__ and __800__.

2. 739 is closer to __700__ than it is to __800__.

3. 739 rounded to the nearest hundred is __700__.

Round to the nearest ten and hundred.

4. 363 __360__   **5.** 829 __830__   **6.** 572 __570__
__400__   __800__   __600__

7. 209 __210__   **8.** 663 __660__   **9.** 949 __950__
__200__   __700__   __900__

10. 762 __760__   **11.** 399 __400__   **12.** 402 __400__
__800__   __400__   __400__

Problem Solving REAL WORLD

13. The baby elephant weighs 435 pounds. What is its weight rounded to the nearest hundred pounds?

__400 pounds__

14. Jayce sold 218 cups of lemonade at his lemonade stand. What is 218 rounded to the nearest ten?

__220__

Lesson Check (CC.3.NBT.1)

1. One day, 758 people visited the Monkey House at the zoo. What is 758 rounded to the nearest hundred?

   (A) 700
   (B) 760
   ● 800
   (D) 860

2. Sami ordered 132 dresses for her store. What is 132 rounded to the nearest ten?

   (A) 100
   ● 130
   (C) 140
   (D) 200

Spiral Review (Reviews CC.2.G.1, CC.2.G.3; CC.3.OA.9)

3. Which describes the number sentence? (Lesson 1.1)

   $$6 + 0 = 6$$

   (A) Commutative Property of Addition
   ● Identity Property of Addition
   (C) even + odd = odd
   (D) odd + odd = odd

4. Which has an even sum? (Lesson 1.1)

   (A) 7 + 4
   ● 2 + 6
   (C) 5 + 4
   (D) 3 + 2

5. What name describes this shape? (Grade 2)

   (A) cone
   (B) cube
   (C) rectangle
   ● triangle

6. What word describes the equal shares of the shape? (Grade 2)

   (A) wholes
   (B) thirds
   (C) halves
   ● fourths

Estimate Sums

Use rounding or compatible numbers to estimate the sum.

Possible answers are given.

1.	198	**200**	2.	87	**90**	3.	222	**200**
	+ 727	+ **725**		+ 34	+ **30**		+ 203	+ **200**
		925			**120**			**400**

4.	52	**50**	5.	256	**250**	6.	302	**300**
	+ 39	+ **40**		+ 321	+**325**		+ 412	+ **400**
		90			**575**			**700**

7.	519	**500**	8.	790	**800**	9.	547	**550**
	+ 124	+ **100**		+ 112	+**100**		+ 326	+ **325**
		600			**900**			**875**

10. 325 + 458

$$\text{\textbf{325}} + \text{\textbf{500}} = \text{\textbf{825}}$$

11. 620 + 107

$$\text{\textbf{600}} + \text{\textbf{100}} = \text{\textbf{700}}$$

Problem Solving REAL WORLD

Possible answers are given.

12. Stephanie read 72 pages on Sunday and 83 pages on Monday. About how many pages did Stephanie read during the two days?

about 150 pages

13. Matt biked 345 miles last month. This month he has biked 107 miles. Altogether, about how many miles has Matt biked last month and this month?

about 450 miles

Lesson Check (CC.3.NBT.1)

1. The McBrides drove 317 miles on one day and 289 on the next day. What is the best estimate of the number of miles the McBrides drove in all during the two days?

Ⓐ 100

Ⓑ 400

Ⓒ 500

● 600

2. Ryan counted 63 birds in his backyard last week. This week, he counted 71 birds in his backyard. About how many birds did Ryan count in all?

Ⓐ about 70

Ⓑ about 100

● about 130

Ⓓ about 200

Spiral Review (Reviews CC.2.G.1; CC.3.NBT.1, CC.3.OA.9)

3. What name describes this shape?

(Grade 2)

Ⓐ cone

● cube

Ⓒ quadrilateral

Ⓓ square

4. Which has an odd sum? (Lesson 1.1)

Ⓐ 9 + 9

Ⓑ 5 + 3

● 6 + 7

Ⓓ 2 + 8
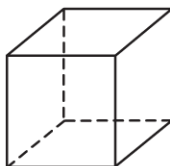
5. What is 503 rounded to the nearest hundred? (Lesson 1.2)

● 500

Ⓑ 510

Ⓒ 600

Ⓓ 610

6. What is 645 rounded to the nearest ten? (Lesson 1.2)

Ⓐ 600

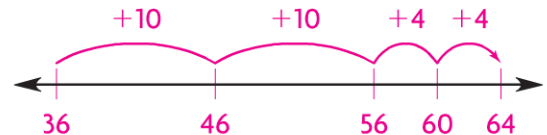Ⓑ 640

● 650

Ⓓ 700

Mental Math Strategies for Addition

**Count by tens and ones to find the sum.
Use the number line to show your thinking.** **Possible drawings are given.**

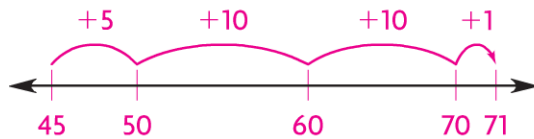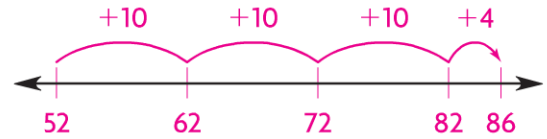**1.** $29 + 14 =$ __**43**__

+1   +10   +3

29 30   40   43

2. $36 + 28 =$ __**64**__

+10   +10   +4 +4

36   46   56 60 64

3. $45 + 26 =$ __**71**__

+5   +10   +10   +1

45   50   60   70 71

4. $52 + 34 =$ __**86**__

+10   +10   +10   +4
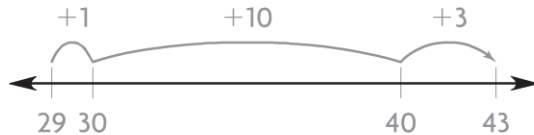
52   62   72   82 86

**Use mental math to find the sum.
Draw or describe the strategy you use.** **Possible strategies are given.**

5. $52 + 19 =$ __**71**__

I used friendly numbers. Subtract 2 from 52 to make 50. Then add 2 to 19 to make 21. 50 + 21 = 71

6. $122 + 306 =$ __**428**__

I used compatible numbers.
122 = 120 + 2
306 = 300 + 6
120 + 300 = 420 and 2 + 6 = 8
420 + 8 = 428

Problem Solving REAL WORLD

7. Shelley spent 17 minutes washing the dishes. She spent 38 minutes cleaning her room. **Explain** how you can use mental math to find how long Shelley spent on the two tasks.

Possible explanation: use friendly numbers. Add 3 to 17 to make 20. Then subtract 3 from 38 to get 35; 20 + 35 = 55; 55 minutes

8. It took Marty 42 minutes to write a book report. Then he spent 18 minutes correcting his report. **Explain** how you can use mental math to find how long Marty spent on his book report.

Possible explanation: use compatible numbers. 42 = 40 + 2; 18 = 10 + 8; 40 + 10 = 50; 2 + 8 = 10; 50 + 10 = 60; 60 minutes

Lesson Check (CC.3.NBT.2)

1. Sylvia spent 36¢ for a pencil and 55¢ for a notepad. Use mental math to find how much she spent in all.

   (A) 80¢   (C) 90¢
   (B) 81¢   ● 91¢

2. Will spent 24 minutes putting together a model plane. Then he spent 48 minutes painting the model. How long did Will spend working on the model plane?

   (A) 62 minutes   ● 72 minutes
   (B) 68 minutes   (D) 81 minutes

Spiral Review (Reviews CC.2.G.1, CC.2.G.3; CC.3.OA.9, CC.3.NBT.1)

3. What name describes this shape? (Grade 2)
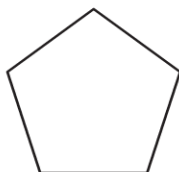
   (A) hexagon
   ● pentagon
   (C) quadrilateral
   (D) triangle

4. What word describes the equal shares of the shape? (Grade 2)

   ● fourths
   (B) halves
   (C) sixths
   (D) thirds

5. Tammy wrote an addition problem that has an odd sum. Which could be Tammy's addition problem? (Lesson 1.1)

   (A) 2 + 6
   (B) 3 + 5
   ● 5 + 6
   (D) 7 + 7

6. Greg counted 83 cars and 38 trucks in the mall parking lot. Which is the best estimate of the total number of cars and trucks Greg counted? (Lesson 1.3)

   (A) 100
   (B) 110
   ● 120
   (D) 130

P10

Use Properties to Add

COMMON CORE STANDARD CC.3.NBT.2
Use place value understanding and properties of operations to perform multi-digit arithmetic.

Use addition properties and strategies to find the sum.

1. 34 + 62 + 51 + 46 = **193**

$$\begin{array}{r} 34 \\ 46 \\ 62 \\ + \ 51 \\ \hline 193 \end{array}$$

10 < 34 > 10
       46
       62

2. 27 + 68 + 43 = **138**

3. 42 + 36 + 18 = **96**

4. 74 + 35 + 16 + 45 = **170**

5. 41 + 26 + 149 = **216**

6. 52 + 64 + 28 + 44 = **188**

Problem Solving REAL WORLD

7. A pet shelter has 26 dogs, 37 cats, and 14 gerbils. How many of these animals are in the pet shelter in all?

77 animals

8. The pet shelter bought 85 pounds of dog food, 50 pounds of cat food, and 15 pounds of gerbil food. How many pounds of animal food did the pet shelter buy?

150 pounds

Lesson Check (CC.3.NBT.2)

1. At summer camp there are 52 boys, 47 girls, and 18 adults. How many people are at summer camp?

   Ⓐ 97
   Ⓑ 107
   ● 117
   Ⓓ 127

2. At camp, 32 children are swimming, 25 are fishing, and 28 are canoeing. How many children are swimming, fishing, or canoeing?

   Ⓐ 75
   ● 85
   Ⓒ 95
   Ⓓ 105

Spiral Review (Reviews CC.2.MD.3; CC.3.NBT.1)

3. Four students estimated the width of the door to their classroom. Who made the best estimate? (Grade 2)

   Ⓐ Ted: 1 foot
   ● Hank: 3 feet
   Ⓒ Ann: 10 feet
   Ⓓ Maria: 15 feet

4. Four students estimated the height of the door to their classroom. Who made the best estimate? (Grade 2)

   Ⓐ Larry: 1 meter
   ● Garth: 2 meters
   Ⓒ Ida: 14 meters
   Ⓓ Jill: 20 meters

5. Jeff's dog weighs 76 pounds. What is the dog's weight rounded to the nearest ten pounds? (Lesson 1.2)

   Ⓐ 70 pounds
   ● 80 pounds
   Ⓒ 90 pounds
   Ⓓ 100 pounds

6. Ms. Kirk drove 164 miles in the morning and 219 miles in the afternoon. Which is the best estimate of the total number of miles she drove that day? (Lesson 1.3)

   Ⓐ 100 miles
   Ⓑ 200 miles
   ● 400 miles
   Ⓓ 500 miles

Use the Break Apart Strategy to Add

Estimate. Then use the break apart strategy to find the sum. Possible estimates are given.

1. Estimate: __800__

$$\begin{aligned} 325 &= 300 + 20 + 5 \\ + \ 494 &= 400 + 90 + 4 \\ \hline 819 & \quad\ 700 + 110 + 9 \end{aligned}$$

2. Estimate: __900__

$$\begin{aligned} 518 &= 500 + 10 + 8 \\ + \ 372 &= 300 + 70 + 2 \\ \hline 890 & \quad\ 800 + 80 + 10 \end{aligned}$$

3. Estimate: __600__

$$\begin{aligned} 473 &= 400 + 70 + 3 \\ + \ 123 &= 100 + 20 + 3 \\ \hline 596 & \quad\ 500 + 90 + 6 \end{aligned}$$

4. Estimate: __800__

$$\begin{aligned} 208 &= 200 + 0 + 8 \\ + \ 569 &= 500 + 60 + 9 \\ \hline 777 & \quad\ 700 + 60 + 17 \end{aligned}$$

5. Estimate: __900__

$$\begin{aligned} 731 &= 700 + 30 + 1 \\ + \ 207 &= 200 + 0 + 7 \\ \hline 938 & \quad\ 900 + 30 + 8 \end{aligned}$$

6. Estimate: __800__

$$\begin{aligned} 495 &= 400 + 90 + 5 \\ + \ 254 &= 200 + 50 + 4 \\ \hline 749 & \quad\ 600 + 140 + 9 \end{aligned}$$

Problem Solving REAL WORLD

Use the table for 7–8.

7. Laura is making a building using Set A and Set C. How many blocks can she use in her building?

410 blocks

8. Clark is making a building using Set B and Set C. How many blocks can he use in his building?

433 blocks

Build-It Blocks	
Set	**Number of Blocks**
A	165
B	188
C	245

Lesson Check (CC.3.NBT.2)

1. Arthur read two books last week. One book has 216 pages. The other book has 327 pages. Altogether, how many pages are in the two books?

Ⓐ 533
● 543
Ⓒ 633
Ⓓ 643

2. One skeleton in a museum has 189 bones. Another skeleton has 232 bones. How many bones in all are in the two skeletons?

Ⓐ 311
Ⓑ 312
Ⓒ 411
● 421

Spiral Review (Reviews CC.2.MD.8; CC.3.OA.9, CC.3.NBT.2)

3. Culver has 1 quarter, 3 dimes, and a penny. How much money does he have? (Grade 2)

Ⓐ 41¢
Ⓑ 55¢
● 56¢
Ⓓ 86¢

4. Felicia has 34 quarters, 25 dimes, and 36 pennies. How many coins does Felicia have? (Lesson 1.5)

Ⓐ 75
Ⓑ 85
● 95
Ⓓ 105

5. Jonas wrote $9 + 8 = 17$. Which number sentence shows the Commutative Property of Addition? (Lesson 1.1)

Ⓐ $9 + 0 = 9$
● $8 + 9 = 17$
Ⓒ $17 - 9 = 8$
Ⓓ $17 - 8 = 9$

6. At Kennedy School there are 37 girls and 36 boys in the third grade. How many students are in the third grade at Kennedy School? (Lesson 1.4)

Ⓐ 63
● 73
Ⓒ 81
Ⓓ 91

P14

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Name _____

Use Place Value to Add

Estimate. Then find the sum. **Possible estimates are given.**

1. Estimate: __**600**__
$$\begin{array}{r} \overset{1}{3}24 \\ +\ 285 \\ \hline 609 \end{array}$$

2. Estimate: __**850**__
$$\begin{array}{r} 519 \\ +\ 347 \\ \hline 866 \end{array}$$

3. Estimate: __**475**__
$$\begin{array}{r} 323 \\ +\ 151 \\ \hline 474 \end{array}$$

4. Estimate: __**500**__
$$\begin{array}{r} 169 \\ +\ 354 \\ \hline 523 \end{array}$$

5. Estimate: __**450**__
$$\begin{array}{r} 148 \\ +\ 285 \\ \hline 433 \end{array}$$

6. Estimate: __**750**__
$$\begin{array}{r} 270 \\ +\ 453 \\ \hline 723 \end{array}$$

7. Estimate: __**375**__
$$\begin{array}{r} 275 \\ +\ 116 \\ \hline 391 \end{array}$$

8. Estimate: __**300**__
$$\begin{array}{r} 157 \\ +\ 141 \\ \hline 298 \end{array}$$

9. Estimate: __**400**__
$$\begin{array}{r} 127 \\ +\ 290 \\ \hline 417 \end{array}$$

10. Estimate: __**800**__
$$\begin{array}{r} 258 \\ +\ 565 \\ \hline 823 \end{array}$$

11. Estimate: __**600**__
$$\begin{array}{r} 311 \\ +\ 298 \\ \hline 609 \end{array}$$

12. Estimate: __**800**__
$$\begin{array}{r} 534 \\ +\ 256 \\ \hline 790 \end{array}$$

Problem Solving REAL WORLD

13. Mark has 215 baseball cards. Emily has 454 baseball cards. How many baseball cards do Mark and Emily have altogether?

669 baseball cards

14. Jason has 330 pennies. Richie has 268 pennies. Rachel has 381 pennies. Which two students have more than 700 pennies combined?

Jason and Rachel

Lesson Check (CC.3.NBT.2)

1. There are 167 students in the third grade. The same number of students is in the fourth grade. How many third graders and fourth graders are there in all?

Ⓐ 224
Ⓑ 234
Ⓒ 324
● 334

2. Jamal read a book with 128 pages. Then he read a book with 179 pages. How many pages did Jamal read in all?

Ⓐ 397
● 307
Ⓒ 297
Ⓓ 207

Spiral Review (CC.3.NBT.1, CC.3.NBT.2)

3. Adam travels 248 miles on Monday. He travels 167 miles on Tuesday. Which is the best estimate for the total number of miles Adam travels? (Lesson 1.3)

Ⓐ 200
Ⓑ 300
● 400
Ⓓ 500

4. Wes made $14, $62, $40, and $36 mowing lawns. How much did he make in all mowing lawns? (Lesson 1.5)

Ⓐ $116
● $152
Ⓒ $166
Ⓓ $188

5. There are 24 students in Mrs. Cole's class and 19 students in Mr. Garmen's class. How many students in all are in the two classes? (Lesson 1.4)

● 43
Ⓑ 40
Ⓒ 33
Ⓓ 5

6. There were 475 children at the baseball game on Sunday. What is 475 rounded to the nearest ten? (Lesson 1.2)

Ⓐ 400
Ⓑ 470
● 480
Ⓓ 500

Estimate Differences

COMMON CORE STANDARD CC.3.NBT.1
Use place value understanding and properties of
operations to perform multi-digit arithmetic.

Use rounding or compatible numbers to estimate
the difference. **Possible answers are given.**

1. $\begin{array}{r} 40 \\ -\ 13 \end{array}$ $\begin{array}{r} 40 \\ -\ 10 \\ \hline 30 \end{array}$	2. $\begin{array}{r} 762 \\ -\ 332 \end{array}$ $\begin{array}{r} \mathbf{800} \\ -\ \mathbf{300} \\ \hline \mathbf{500} \end{array}$	3. $\begin{array}{r} 823 \\ -\ 242 \end{array}$ $\begin{array}{r} \mathbf{800} \\ -\ \mathbf{250} \\ \hline \mathbf{550} \end{array}$
4. $\begin{array}{r} 98 \\ -\ 49 \end{array}$ $\begin{array}{r} \mathbf{100} \\ -\ \mathbf{50} \\ \hline \mathbf{50} \end{array}$	5. $\begin{array}{r} 287 \\ -\ 162 \end{array}$ $\begin{array}{r} \mathbf{300} \\ -\ \mathbf{200} \\ \hline \mathbf{100} \end{array}$	6. $\begin{array}{r} 359 \\ -\ 224 \end{array}$ $\begin{array}{r} \mathbf{350} \\ -\ \mathbf{225} \\ \hline \mathbf{125} \end{array}$
7. $\begin{array}{r} 68 \\ -\ 31 \end{array}$ $\begin{array}{r} \mathbf{70} \\ -\ \mathbf{30} \\ \hline \mathbf{40} \end{array}$	8. $\begin{array}{r} 476 \\ -\ 155 \end{array}$ $\begin{array}{r} \mathbf{475} \\ -\ \mathbf{150} \\ \hline \mathbf{325} \end{array}$	9. $\begin{array}{r} 622 \\ -\ 307 \end{array}$ $\begin{array}{r} \mathbf{600} \\ -\ \mathbf{300} \\ \hline \mathbf{300} \end{array}$

10. $771 - 531$

$\mathbf{775 - 550 = 225}$

11. $299 - 61$

$\mathbf{300 - 60 = 240}$

Problem Solving REAL WORLD

Possible answers are given.

12. Ben has a collection of
812 stamps. He gives his brother
345 stamps. About how many
stamps does Ben have left?

about 450 stamps

13. Savannah's bakery sold 284 pies in
September. In October the bakery
sold 89 pies. About how many more
pies did Savannah's bakery sell in
September than in October?

about 200 pies

Lesson Check (CC.3.NBT.1)

1. Jorge has 708 baseball cards and 394 basketball cards. About how many more baseball cards than basketball cards does Jorge have?

(A) about 200

● about 300

(C) about 400

(D) about 500

2. Danika is making necklaces. She has 512 silver beads and 278 blue beads. About how many more silver than blue beads does Danika have?

● about 200

(B) about 300

(C) about 400

(D) about 800

Spiral Review (CC.3.NBT.1, CC.3.NBT.2)

3. A store manager ordered 402 baseball caps and 122 ski caps. Which is the best estimate of the total number of caps the manager ordered? **(Lesson 1.3)**

(A) 300

● 500

(C) 600

(D) 700

4. Autumn collected 129 seashells at the beach. What is 129 rounded to the nearest ten? **(Lesson 1.2)**

(A) 100

(B) 120

● 130

(D) 200

5. Find the sum. **(Lesson 1.7)**

$$\begin{array}{r} 585 \\ +\ 346 \\ \hline \end{array}$$

(A) 239

(B) 821

(C) 900

● 931

6. Julie made $22, $55, $38, and $25 babysitting. How much did she make in all babysitting? **(Lesson 1.5)**

(A) $102

(B) $115

● $140

(D) $165

P18

Name _____

Mental Math Strategies for Subtraction

Use mental math to find the difference. Draw or describe the strategy you use.

Possible strategies are given.

1. $74 - 39 =$ ___**35**___

-5 -4 -10 -10 -10

35 40 44   54   64   74
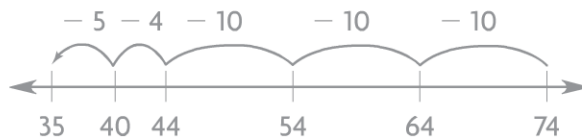
2. $93 - 28 =$ ___**65**___

I used friendly numbers. 28 + 2 = 30; 93 + 2 = 95; 95 − 30 = 65

3. $51 - 9 =$ ___**42**___

I used friendly numbers. I subtracted 10 from 51 to get 41 and added 1 to get 42.

4. $76 - 23 =$ ___**53**___

$+10$ $+10$ $+10$ $+10$ $+10$ $+3$

23   33   43   53   63   73 76
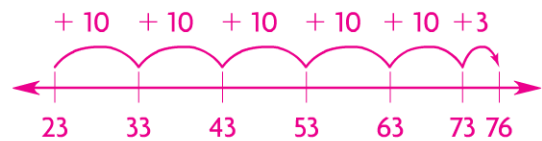
5. $357 - 214 =$ ___**143**___

I used the break apart strategy. 300 − 200 = 100; 50 − 10 = 40; 7 − 4 = 3; 100 + 40 + 3 = 143

6. $285 - 99 =$ ___**186**___

I used friendly numbers. I subtracted 100 to get 185 then added 1 to get 186.

Problem Solving REAL WORLD

7. Ruby has 78 books. Thirty-one of the books are on shelves. The rest are still packed in boxes. How many of Ruby's books are still in boxes?

47 books

8. Kyle has 130 pins in his collection. He has 76 of the pins displayed on his wall. The rest are in a drawer. How many of Kyle's pins are in a drawer?

54 pins

Lesson Check (CC.3.NBT.2)

1. One day, a baker made 54 fruit pies. At the end of the day, only 9 of the pies were NOT sold. How many pies were sold that day?

(A) 43   (C) 63

● 45   (D) 65

2. George's father bought a 50-pound bag of wild bird seed. At the end of two weeks, 36 pounds of seed were left in the bag. How many pounds of seed had been used?

● 14 pounds   (C) 26 pounds

(B) 24 pounds   (D) 86 pounds

Spiral Review (CC.3.NBT.1, CC.3.NBT.2)

3. For a party, Shaun blew up 36 red balloons, 28 white balloons, and 24 blue balloons. How many balloons did he blow up in all? (Lesson 1.5)

(A) 78
(B) 81
(C) 87
● 88

4. Tiffany has read 115 pages of her book. She has 152 pages left to read. How many pages are in the book? (Lesson 1.6)

(A) 37
● 267
(C) 277
(D) 367

5. The flower shop had 568 flowers on Monday. By Tuesday, the shop had 159 flowers left. About how many flowers had been sold? (Lesson 1.8)

(A) about 200
(B) about 300
● about 400
(D) about 500

6. There are 383 books in one section of the school library. Of the books, 165 are fiction books. Which is the best estimate of the number of books in that section that are NOT fiction? (Lesson 1.8)

● about 200
(B) about 300
(C) about 400
(D) about 500

Use Place Value to Subtract

Estimate. Then find the difference. **Possible estimates are given.**

1. Estimate: **500**

$$
\begin{array}{r}
\overset{7\ \ 15}{5\cancel{8}5} \\
-\ 119 \\
\hline
\textbf{466}
\end{array}
$$

2. Estimate: **500**

$$
\begin{array}{r}
738 \\
-\ 227 \\
\hline
\textbf{511}
\end{array}
$$

3. Estimate: **300**

$$
\begin{array}{r}
651 \\
-\ 376 \\
\hline
\textbf{275}
\end{array}
$$

4. Estimate: **500**

$$
\begin{array}{r}
815 \\
-\ 281 \\
\hline
\textbf{534}
\end{array}
$$

5. Estimate: **200**

$$
\begin{array}{r}
487 \\
-\ 290 \\
\hline
\textbf{197}
\end{array}
$$

6. Estimate: **600**

$$
\begin{array}{r}
936 \\
-\ 329 \\
\hline
\textbf{607}
\end{array}
$$

7. Estimate: **140**

$$
\begin{array}{r}
270 \\
-\ 128 \\
\hline
\textbf{142}
\end{array}
$$

8. Estimate: **200**

$$
\begin{array}{r}
364 \\
-\ 177 \\
\hline
\textbf{187}
\end{array}
$$

9. Estimate: **400**

$$
\begin{array}{r}
627 \\
-\ 253 \\
\hline
\textbf{374}
\end{array}
$$

10. Estimate: **450**

$$
\begin{array}{r}
862 \\
-\ 419 \\
\hline
\textbf{443}
\end{array}
$$

11. Estimate: **550**

$$
\begin{array}{r}
726 \\
-\ 148 \\
\hline
\textbf{578}
\end{array}
$$

12. Estimate: **200**

$$
\begin{array}{r}
543 \\
-\ 358 \\
\hline
\textbf{185}
\end{array}
$$

Problem Solving REAL WORLD

13. Mrs. Cohen has 427 buttons. She uses 195 buttons to make puppets. How many buttons does Mrs. Cohen have left?

232 buttons

14. There were 625 ears of corn and 247 tomatoes sold at a farm stand. How many more ears of corn were sold than tomatoes?

378 more ears of corn

Lesson Check (CC.3.NBT.2)

1. On Saturday, 453 people go to a school play. On Sunday, 294 people go to the play. How many more people go to the play on Saturday?

   ● 159
   (B) 169
   (C) 259
   (D) 747

2. Corey has 510 marbles. He fills one jar with 165 marbles. How many of Corey's marbles are NOT in the jar?

   (A) 675
   (B) 455
   (C) 350
   ● 345

Spiral Review (CC.3.NBT.1, CC.3.NBT.2)

3. Pattie brought 64 peppers to sell at the farmers' market. There were 12 peppers left at the end of the day. How many peppers did Pattie sell? (Lesson 1.9)

   (A) 50
   ● 52
   (C) 62
   (D) 78

4. An airplane flies 617 miles in the morning. Then it flies 385 miles in the afternoon. About how many more miles does the airplane fly in the morning? (Lesson 1.8)

   (A) about 100 miles
   ● about 200 miles
   (C) about 300 miles
   (D) about 900 miles

5. What is the unknown number?

   (Lesson 1.5)

   $(\blacksquare + 4) + 59 = 70$

   (A) 4
   (B) 6
   ● 7
   (D) 8

6. Dexter has 128 shells. He needs 283 more shells for his art project. How many shells will Dexter use for his art project? (Lesson 1.6)

   (A) 155
   (B) 165
   (C) 401
   ● 411

Name _____

Combine Place Values to Subtract

Possible estimates are given.

Estimate. Then find the difference.

1. Estimate: **200**

476
− 269
207

2. Estimate: **300**

615
− 342
273

3. Estimate: **400**

508
− 113
395

4. Estimate: **500**

716
− 229
487

5. Estimate: **400**

700
− 326
374

6. Estimate: **100**

325
− 179
146

7. Estimate: **100**

935
− 813
122

8. Estimate: **50**

358
− 292
66

9. Estimate: **200**

826
− 617
209

10. Estimate: **750**

900
− 158
742

11. Estimate: **40**

607
− 568
39

12. Estimate: **100**

973
− 869
104

Problem Solving REAL WORLD

13. Bev scored 540 points. This was 158 points more than Ike scored. How many points did Ike score?

382 points

14. A youth group earned $285 washing cars. The group's expenses were $79. How much profit did the group make washing cars?

$206

Lesson Check (CC.3.NBT.2)

1. A television program lasts for 120 minutes. Of that time, 36 minutes are taken up by commercials. What is the length of the actual program without the commercials?

   ● 84 minutes   Ⓒ 104 minutes

   Ⓑ 94 minutes   Ⓓ 156 minutes

2. Syd spent 215 minutes at the library. Of that time, he spent 120 minutes on the computer. How much of his time at the library did Sid NOT spend on the computer?

   Ⓐ 85 minutes   Ⓒ 105 minutes

   ● 95 minutes   Ⓓ 335 minutes

Spiral Review (CC3.NBT.1, CC.3.NBT.2)

3. Xavier's older brother has 568 songs on his music player. To the nearest hundred, about how many songs are on the music player? (Lesson 1.2)

   Ⓐ 500

   ● 600

   Ⓒ 700

   Ⓓ 800

4. The students traveled to the zoo in 3 buses. One bus had 47 students. The second bus had 38 students. The third bus had 43 students. How many students in all were on the three buses? (Lesson 1.5)

   Ⓐ 108

   Ⓑ 118

   ● 128

   Ⓓ 138

5. Callie has 83 postcards in her collection. Of the postcards, 24 are from Canada. The rest of the postcards are from the United States. How many of the postcards are from the United States? (Lesson 1.9)

   Ⓐ 58

   ● 59

   Ⓒ 61

   Ⓓ 69

6. There were 475 seats set up for the school play. At one performance, 189 of the seats were empty. How many seats were filled at that performance? (Lesson 1.10)

   ● 286

   Ⓑ 296

   Ⓒ 314

   Ⓓ 396

Problem Solving • Model Addition and Subtraction

COMMON CORE STANDARD CC.3.OA.8

Solve problems involving the four operations, and identify and explain patterns in arithmetic.
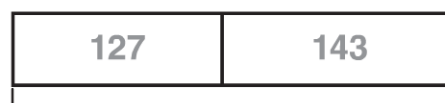
Use the bar model to solve the problem.

1. Elena went bowling. Elena's score in the first game was 127. She scored 16 more points in the second game than in the first game. What was her total score?

127	16

▲ points

127	143

■ points

$$127 + 16 = ▲$$
$$143 = ▲$$

$$127 + 143 = ■$$
$$270 = ■$$

270 points

2. Mike's Music sold 287 CDs on the first day of a 2-day sale. The store sold 96 more CDs on the second day than on the first day. How many CDs in all were sold during the 2-day sale?

287 CDs	**96** CDs

✦ CDs

287 CDs	**383** CDs

◆ CDs

$$✦ = 383$$

$$◆ = 670$$

670 CDs

Lesson Check (CC.3.OA.8)

1. Ms. Hinely picked 46 tomatoes from her garden on Friday. On Saturday, she picked 17 tomatoes. How many tomatoes did she pick in all?

Ⓐ 109　　Ⓒ 53

● 63　　Ⓓ 29

2. Rosa read 57 pages of a book in the morning. She read 13 fewer pages in the afternoon. How many pages did Rosa read in the afternoon?

● 44　　Ⓒ 70

Ⓑ 60　　Ⓓ 83

Spiral Review (CC.3.NBT.1, CC.3.NBT.2)

3. Mike has 57 action figures. Alex has 186 action figures. Which is the best estimate of the number of action figures Mike and Alex have altogether? **(Lesson 1.8)**

Ⓐ 150

● 250

Ⓒ 350

Ⓓ 400

4. There are 500 sheets of paper in the pack Hannah bought. She has used 137 sheets already. How many sheets of paper does Hannah have left? **(Lesson 1.11)**

● 363

Ⓑ 463

Ⓒ 400

Ⓓ 637

5. There were 378 visitors to the science museum on Friday. There were 409 visitors on Saturday. How many more people visited the museum on Saturday? **(Lesson 1.7)**

Ⓐ 25

● 31

Ⓒ 171

Ⓓ 787

6. Ravi scores 247 points in a video game. How many more points does he need to score a total of 650?

(Lesson 1.10)

Ⓐ 897

Ⓑ 430

Ⓒ 417

● 403

Chapter 1 Extra Practice

Lesson 1.1

Find the sum. Then use the Commutative Property of Addition to write the related addition sentence.

1. $5 + 7 =$ **12**

7 + **5** = **12**

2. $4 + 9 =$ **13**

9 + **4** = **13**

3. $0 + 5 =$ **5**

5 + **0** = **5**

Lesson 1.2

Round to the nearest ten and hundred.

1. 622 **620**

600

2. 307 **310**

300

3. 867 **870**

900

Lesson 1.3

Possible answers are given.

Use rounding or compatible numbers to estimate the sum.

1. 24   **20**
   + 82 + **80**
          100

2. 112   **100**
   + 279 + **300**
           400

3. 583   **600**
   + 169 + **200**
           800

Lesson 1.4

Use mental math to find the sum.

1. $71 + 99 =$ **170**

2. $38 + 58 =$ **96**

3. $307 + 418 =$ **725**

Lesson 1.5

Use addition properties and strategies to find the sum.

1. $13 + 47 + 21 + 79 =$ **160**

2. $55 + 18 + 15 + 43 =$ **131**